REMARKS

The Examiner has repeated and made final the rejection of claims 1-41 are rejected under 35 U.S.C. 102(b) as being anticipated by Malki et al., "Low Latency Handoff in Mobile IPv4, Internet Draft, pages 1-65, May 2001, hereafter referred to as Malki et al.

This rejection is respectfully disagreed with, and is traversed below.

All of the arguments presented in the response to the first Office Action are repeated and incorporated by reference herein in their entireties. The following comments and arguments are made primarily with respect to the Examiner's Response to Arguments that begin on page 12 of the most recent office action.

It is first pointed out that the Applicants do not expressly accept or acquiesce to the Examiner's statement that Malki et al. "teach the notorious 'vertical handoff' or 'inter-tech handoff' as disclosed and claimed in the instant application".

The Examiner continues by stating: "Since there is neither specific definition for disputed term 'Bearer Context message' in the claim nor the specification of the instant application...The claimed 'Bearer Context message' is corresponding to the Malki et al's disclosure of 'identifier' in the solicitation message, as clearly pointed out in the Office Action".

Relatedly, the Examiner on page 14 takes issue with the Applicants' prior argument that the Malki et al. reference fails to anticipate the limitation of 'the Bearer Context message is piggybacked on another message' (with regard to claim 2).

The Examiner also takes issue with the Applicants' argument regarding the failure of Malki et al. to disclose the QoS aspects of this invention as claimed. In making this argument the Examiner states that "to this day there is no unified standard for Quality of Service (QoS)", and that

"Different technologies or protocols have their own QoS to include precedence/tos/flow in TCP/IP; CBR, VBR, ABR and UBR in ATM; data rate, error in cellular. The QoS is definitely contemplated by the author of the reference..." etc.

The Examiner's attention is respectfully drawn to the instant patent application at, for example, page 8, line 22, to page 9, line 20, where the Applicants disclose the following:

"Referring now also to Figure 4, after the MN 3 determines to initiate an inter-technology handoff from the WLAN 1 to the cdma2000 network 2 (based on whatever suitable parameter(s) are employed, such as signal strength and/or signal quality and/or the use of border bits), it sends, by a wireless connection, a Proxy Router Solicitation (ProxyRtSol) to an AR 8, which in turn sends, via the Internet 4, a Router Solicitation to the PDSN 12. **In addition, the MN 3 arranges to transfer what is referred to herein as a "Bearer Context" message to the PDSN 12 via the AR 8. The Bearer Context message contains parameters for use in establishing access network bearers in the cdma2000 network 2 for the ongoing Internet session(s) of the MN 3. The Bearer Context message can be sent from the MN 3 to the AR 8 piggybacked on the ProxyRtSol, or piggybacked on another message, or it can be sent as a separate message. From the AR 8 to the PDSN 12 the Bearer Context message can be piggybacked on a Router Solicitation message, or it can be sent in a separate message. The Bearer Context message includes at least one or more of the following, or similar or equivalent information:**

the QoS requirement of the MN's ongoing application(s), such as one or more of the desired bandwidth, reliability and latency characteristics,
the MSID: Mobile Station Identity recognizable by the cdma2000 network 2, e.g., the IMSI (International Mobile Subscriber Identity) of the MN 3,
LCP (Link Control Protocol) configuration parameters such as MRU (Maximum Receive Unit), ACCM (Async Character Control Map) and a link quality monitoring protocol to be used, to facilitate the creation of PPP state in the PDSN 12,
TFT (Traffic Flow Templates) to enable establishment of packet filters in the PDSN 12, and any other desired service parameters, such as a requested security level.

The foregoing parameters that comprise the Bearer Context message are not to be read in a limiting sense. For example, it is also within the scope of this invention to also provide, or to provide in lieu of one of the foregoing parameters, other parameters that request resources from the cellular network 2, such as a location tracking service and/or a transcoding service for use in certain packet sessions." (emphasis added)

In view of this disclosure, the Examiner's statement:

"Since there is neither specific definition for disputed term 'Bearer Context message' in the claim nor the specification of the instant application...The claimed 'Bearer Context message' is corresponding to the Malki et al's disclosure of 'identifier' in the solicitation message, as clearly pointed out in the Office Action",

is clearly traversed, as the meaning of the term "Bearer Context message" found in the claims is clearly not in dispute. Further, it should be clear that any "identifier" in a solicitation message of Malki et al. does not anticipate the subject matter of, for example, claim 1, where it is stated that the method transmits:

"a Bearer Context message from the MN for use by the cellular network, the **Bearer Context message comprising information for use in establishing at least one access bearer with the cellular network for an ongoing packet data session of the MN**" (emphasis added).

In a related sense, claim 2 states that "**the Bearer Context message is piggybacked on another message**", while page 23, first paragraph of Malki et al. instead states that:

> "**Piggy-backing advertisements on L2 messaging involves utilizing the L2 messaging involved in L2 handoff to transmit the Router Advertisement from the nFA to the MN or oFA.** When the first L2 handoff messages are exchanged, it may be possible to transmit a Router Advertisement piggybacked onto L2 messages. Alternatively, the L2 at oFA may cache nFA's advertisements and not need to receive Router Advertisements upon every L2 handoff initiation. Whether this technique is possible depends on the particulars of the L2 technology and is outside the scope of this document" (emphasis added).

The Applicants thus again submit that Malki et al. also clearly do not anticipate claim 2, as the piggybacking of advertisements on L2 messaging is clearly not analogous to the claimed piggybacking of the Bearer Context message (whose meaning is established in the specification and is not in dispute) on another message.

Turning now to the Examiner's arguments concerning QoS, the Applicants did not mean to imply that Malki et al. were unaware or ignorant of QoS (if the Examiner interpreted the argument in

this way). What the Applicants intended to highlight was simply that Malki et al. state in Appendix B that Quality of Service (QoS), cost, etc are out of their scope:

> "Suppose MN enters the coverage area of RN2 and nFA and that it prefers connectivity to this network for reasons beyond the scope of this document (e.g. user preferences, cost, QoS available etc.)."

The Applicants then pointed out that creating state *apriori* to accommodate QoS requirements and other factors are not considered by Malki et al. and, thus, Malki et al. cannot anticipate, for example, claim 3 which expressly states that:

> **"the Bearer Context message comprises information expressive of a QoS requirement of an ongoing application or applications of the MN"** (emphasis added).

That portion of Malki et al. cited by the Examiner is the portion noted above, and is the only mention of QoS in Malki et al., and in fact **teaches away** from the claimed invention as it states:

> "Suppose MN enters the coverage area of RN2 and nFA and that it **prefers connectivity to this network for reasons beyond the scope of this document (e.g.** user preferences, cost, **QoS available** etc.)" (emphasis added).

Malki et al. thus also clearly do not anticipate claim 3, notwithstanding the Examiner's various assertions regarding there being "no unified standard for Quality of Service (QoS)", etc. Reference may also be had to that portion of the specification shown above, where QoS is discussed in the context of the Bearer Context message. There is no similar disclosure or suggestion in Malki et al.

Turning now again to the specific claim language, the Examiner has stated that Malki et al. anticipate the first element of claim 1. Turning to page 14 of Malki et al. (in the Examiner's provided printed version, which is actually page 9 of the document available from: http://www.ietf.org/proceedings/01aug/I-D/draft-ietf-mobileip-lowlatency-handoffs-v4-01.txt)

what is actually stated is that:

> "1. **Messages 1a and 1b contain a solicitation of a Router Advertisement by oFA from nFA and a reply Router Advertisement from nFA.** These messages SHOULD occur in advance of the PRE-REGISTRATION Handoff in order to not delay the handoff. For this to occur, oFA MAY solicit and cache advertisements from the nFA, thus decoupling the timing of this exchange from the rest of the PRE-REGISTRATION Handoff. When the L3 handoff is initiated by a target L2 trigger at nFA, message 1b is sent unsolicited directly to MN rather than relayed by oFA.
>
> 2. The presence of message 2a indicates that the handoff is mobile- initiated and its absence means that the handoff is network-initiated. In mobile-initiated handoff, message 2a occurs if there is an L2 trigger in the MN to solicit for a Proxy Router Advertisement. When message 2a is received by the oFA, the oFA returns the Proxy Router Advertisement in message 2b. In network-initiated handoff, the L2 trigger occurs at oFA and oFA relays the Router Advertisement in message 2b without the need for MN to solicit. Note that it is also possible for nFA to advertise directly to the MN in the network-initiated target-trigger case (section 3.2). In all cases message 2b is simply nFA's router advertisement" (emphasis added).

However, the first element of claim 1 states instead:

> "**transmitting a Bearer Context message from the MN** for use by the cellular network, **the Bearer Context message comprising information for use in establishing at least one access bearer with the cellular network for an ongoing packet data session of the MN**" (emphasis added).

The use of Router Advertisement solicitation and reply messages in the Pre-Registration related disclosure of Malki et al. quoted above clearly does **not** expressly disclose or suggest the claimed subject matter.

As was argued above, and as is now argued again, there is **no express disclosure of a "Bearer Context message" in Malki et al.**, or any disclosure of a message having the purpose and functionality of the Bearer Context message (**which is again not admitted to be a "disputed term" as stated by the Examiner**).

This being the case, then Malki et al. also cannot anticipate the second element of claim 1, i.e.:

> "**responding to the receipt of the Bearer Context message** with a Router Advertisement message that is forwarded towards the MN" (emphasis added).

In that claim 1 is clearly not anticipated by Malki et al., and is also clearly not rendered obvious by the disclosure of Malki et al., then claim 1 is patentable over Malki et al., as are all claims that depend from claim 1.

The Examiner is again respectfully reminded that it is well recognized that "to constitute an anticipation, all material elements recited in a claim must be found in one unit of prior art", Ex Parte Gould, BPAI, 6 USPQ 2d, 1680, 1682 (1987), citing with approval In re Marshall, 578 F.2d 301, 304, 198 USPQ 344, 346 (CCPA 1978). In the instant case it is clear that not all "material elements" of claims 1-26 are found in Malki et al., and thus that Malki et al. cannot anticipate these claims under 35 U.S.C. 102(b).

The foregoing arguments apply as well to system claims 27-32, and to computer program claims 33-37 and 38-41, at least for the reason that each refers to the use of the "Bearer Context message".

The Examiner is respectfully requested to reconsider and remove the rejections of the claims under 35 U.S.C. 102(b) based on Malki et al., and to allow all of the pending claims 1-41. An early notification of the allowability of claims 1-41 is earnestly solicited.

Respectfully submitted:

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